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ABSTRACT

The factors contributing to the need for an increasing ratio of health workers to total manpower in South Carolina are: demand for more and better health services, augmented by government support; technological advances in medical science; new organization patterns in medical care; rapid increase in population; development of new kinds of community facilities for outpatient care; and the use of increasing numbers of health personnel in diverse settings. The data were derived from available reports, related literature, and surveys. Recommendations were made dealing with the reorganization of responsibility of health personnel in administrative and managerial positions, the development of federal and local government incentives, the restructuring of salary scales, the elimination of outmoded medical jobs, the recruitment of more personnel through better job descriptions, the planning of new and extensive training programs including summer jobs, the cooperation of curriculum planners, and the initiation of programs for paramedical personnel. (Statistics, correspondence, and a list of certification authorities are included.) (KP)

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Health Manpower in South Carolina

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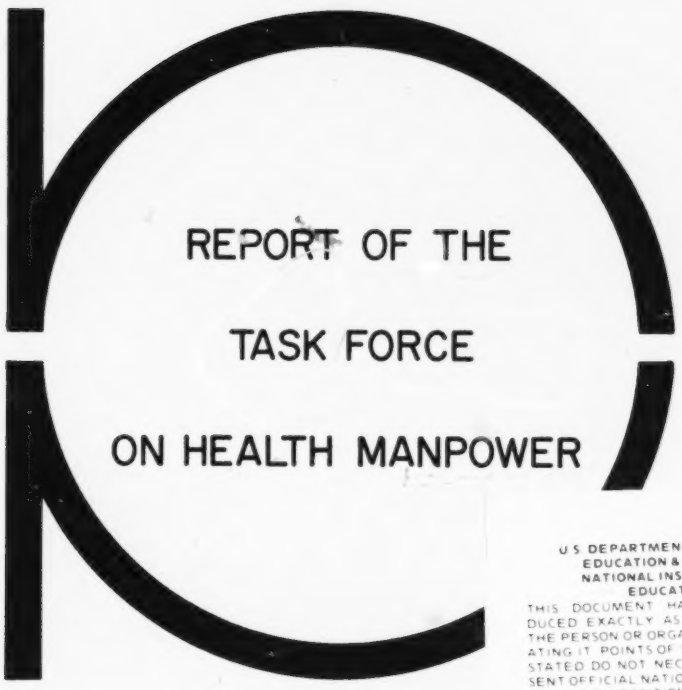

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South Carolina State Board of Health
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COMPILED BY:
TASK FORCE ON HEALTH MANPOWER
IN COLLABORATION WITH THE ADVISORY COUNCIL
FOR COMPREHENSIVE HEALTH PLANNING

Health Manpower In South Carolina

Report of the

TASK FORCE ON HEALTH MANPOWER

December 1970

South Carolina State Board of Health
E. Kenneth Aycock, M.D., State Health Officer

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INTRODUCTION

W. H. Botts

The Bylaws of the Advisory Council for Comprehensive Health Planning authorize the establishment of special task forces as may be required from time to time. Accordingly, the Council appointed health task forces on Manpower, Facilities, Resources, Education, and Services. Each group was to have not less than 15 nor more than 25 members. The proposed period of existence was one year. The initial, organizational meeting of all five task forces was held April 2, 1969.

Article III of the Bylaws referred to above states, in part: "The duties of these task forces will be to study special problems in depth and report the results of their study with recommendations to the Council." The Task Force on Health Manpower was advised to make its final report to the Health Problems and Needs Committee of the Advisory Council. See Appendix A for the Manpower Statement adopted by the Advisory Council for Comprehensive Health Planning.

It is widely recognized that there is a serious and increasing shortage of health professionals and allied health manpower in South Carolina as well as the entire nation. The problem is more critical in South Carolina than in most states. This shortage is evident in most categories and levels, from occupations requiring the least amount of training up through the highest professional levels. See Appendix B for data which points up some of the manpower shortages.

Many factors contribute to the need for an increasing ratio of health workers to total manpower. Among them are: demand for more and better health services, augmented by government support, including Medicare and Medicaid; technological advances in medical science; new patterns in the organization of medical care; rapid increase in the population of the United States; development of new kinds of community

facilities for outpatient care; and use of increasing numbers of health personnel in many educational and welfare settings.

Thus the Task Force on Health Manpower set out to define and discuss pertinent problems, study available reports and related literature, collect, compile, and analyze data which are associated with the issues, and to make suggestions and recommendations as to solutions to the problems.

The first meeting on April 2, 1969 was largely devoted to discussions of the basic purpose of the task force activity and efforts to decide on methods of operation.

At the second meeting on May 7, 1969 the Chairman appointed four sub-task forces as follows:

1. Sub-Task Force to Study Need for Health Manpower Survey
2. Sub-Task Force for Educational and Training Needs
3. Sub-Task Force for Study of Licensing or Standards for Health Professions
4. Sub-Task Force on Recruitment and Job Placement

Each of these groups made thorough studies of the assigned problems. Their individual reports begin on page 7.

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SUMMARY OF RECOMMENDATIONS

of the

TASK FORCE ON HEALTH MANPOWER

Specific recommendations proposed by all of the sub-task forces are summarized below for quick reference. They are explained more fully in the next section of this report. All of the following were approved by the entire task force.

Recommendations:

1. That the State Board of Health explore the implementation of a plan to conduct a statewide comprehensive health manpower survey.
2. That those occupying key administrative or managerial positions in hospitals, nursing homes, public health services, and laboratories should accept personal responsibility in developing recruitment and training programs for their occupational needs.
3. That health facilities undertake special recruitment efforts aimed at young people throughout the State.
4. That employers in health services plan programs designed to bring back into the field workers previously trained in health care but now in other pursuits.
5. That administrators and managers of health facilities join other health professionals in eliminating outmoded job specifications which curtail recruitment.
6. That health facilities cooperate with training agencies educational institutions, and employment services to expand summer job opportunities and internships for young people.
7. That higher salaries and greater promotion opportunities be combined with more convenient and favorable working conditions to reduce the high rate of labor turnover in the health field.
8. That hospitals and other employers be encouraged and assisted in analyzing the content of health service jobs to insure that the time of skilled workers is not wasted on routine tasks and that their skills are fully used.
9. That health services administrators explore the development of federal or local government incentives, supplemented by financial assistance from private foundations, to meet the critical need of health care workers in low-income areas and rural areas.

10. That employers in health services use the State Employment Service not only for vacancy listings and referrals but also to recruit candidates who would not normally view themselves as applicants for health care jobs.

11. That health facilities utilize and seek the cooperation of other public and private organizations, agencies, and institutions in alleviating the critical shortage of manpower in the health field.

12. That a special committee be established to coordinate allied health manpower training at all levels in the State. The group should consist of representatives of the State Board of Health, the Technical Education Committee, the South Carolina Medical University, the State Department of Education's Vocational Education Division, the Commission on Higher Education, and any other agency directly concerned with health manpower training.

13. That the Medical University of South Carolina take steps to establish as soon as possible a program to train Physician's Assistants.

14. That the basic principles of licensing practice must uphold a high standard of performance, and at the same time, must recognize the demand and usefulness of individuals of varying levels and degrees of ability. We find that there should be designation of licensed ability and areas of responsibility.

15. That in planning training programs active coordination must be established among curriculum planners, licensing authorities, professional organizations, and those who set educational requirements for job qualifications so that provisions may be made for upward mobility of personnel as they increase in competence.

16. That future committees establish active communication between those studying licensing needs and those studying educational needs. This should prevent licensing standards from being raised before adequate training resources could be provided to supply more highly trained personnel, with the resultant risk of decreasing rather than increasing total health care services.

17. That priority be given to increasing the number and quality of students who are enrolled in medical, dental, and registered nurse training programs, and that further consideration be given to some state financing mechanism that would furnish the institutions responsible for the postgraduate training of these individuals some incentive to upgrade and enrich their programs.

Report of

Sub-Task Force to Stu Need for Health Manpower Survey

Members: Mr. He ɔert Weisberg, Chairman
Mrs. Carole Connor
Mr. L. M. Harleston
Mr. Paul Jarvis
Mr. Earl Ellis
Dr. Cecil Johnson

Tasks assigned: (1) Establish criteria for study
(2) Secure funds
(3) Select firm or agency to do survey

During the discussions of the group, alleged shortages of health manpower were never denied. General statements referring to them were accepted because of widespread statements of conditions in South Carolina. However, no documentation of the extent of the shortages was available in sufficient detail to be considered adequate for the use of training agencies and educational institutions in planning their training programs.

A survey of health manpower was made in 1965, co-sponsored by the South Carolina Employment Security Commission and the South Carolina Hospital Association. The sub-task force considered these data to be not current enough to be completely adequate for present use. One significant reason for this conclusion was the fact that the extra manpower demands of the Medicare and Medicaid programs were not in effect at the time of the survey. In addition, some employers of health manpower such as industry, educational institutions, and private practice physicians and dentists were not surveyed.

The table (Appendix C) became available only a short time before the conclusion of the task force's period of existence. It shows an estimate of the extent of some of the statewide shortages, but there are three specific shortcomings in this information:

1. Only a few of the many health occupations are tabulated.
2. No attempt is made to pinpoint areas of the State where the shortages are most acute.
3. There are no projections of future needs.

The table does point up the seriousness of the shortages in certain occupations as compared to national averages, not only in the supply of health workers, but also in the inadequate numbers of students in training for a number of professions and occupations. It should also be noted that South Carolina exceeds the national averages in the following categories: Pharmacy Students, Pharmacy Graduates, and Dental Assistant Graduates.

The question of the need for a comprehensive statewide manpower survey was thoroughly aired in the meetings of the entire task force as well as the sub-group. There were differences of opinion as to whether such a survey was essential or worth the cost. It was contended on the one hand that training agencies and educational institutions are in dire need of reliable current information in order to plan training programs so as to train for greatest need and to guard against overtraining in areas where certain workers may not be so scarce. On the other hand, the opinion was expressed that since the shortages are so extensive, all of the training facilities could operate at the upper limit of their resources in the foreseeable future with practically no danger of overtraining.

At one point there was proposed a one-time, interim, "quickie" inventory to suffice until more reliable data could be gathered. This proposal was rejected by the entire task force as impractical.

For the purpose of documenting actual need for a comprehensive survey, letters were written by the Chairman of the Task Force on Health Manpower to nine major training agencies and educational institutions in South Carolina. Responses varied from active interest to expressions indicating urgent necessity for a survey. See Appendix D for copies of the letter of inquiry and the responses.

The Chairman of the sub-task force obtained two proposals for conducting a survey. One was prepared by a University of South Carolina professor and would cost approximately $20,000 cash outlay plus an undetermined amount of technical and administrative services in kind. The other proposal was made by a professional consultant firm, and would

cost a total of $58,000, a great deal of which would also be services in kind.

Both of the above mentioned proposals were carefully studied. The entire task force accepted the sub-task force's suggestion and *recommended* to the Advisory Council for Comprehensive Health Planning *that the State Board of Health explore the implementation of the consultant firm's proposal.*

After endorsement of this recommendation by the Health Problems and Needs Committee, the Advisory Council *recommended* to the Executive Committee of the State Board of Health *that a health manpower survey be made by the State Planning and Grants Division of the Governor's Office because it has accessibility to financial assistance from state agencies involved in the teaching and training of health personnel and further that it coordinate the activity with the Director of the Division of Statistical Research, Budget and Control Board (State Statistical Coordinator), the South Carolina Employment Security Commission, the South Carolina Hospital Association, the South Carolina Medical Association, State Comprehensive Health Planning Agency, and the South Carolina Nurses' Association.*

Report of
Sub-Task Force for Educational and Training Needs

Members: Dr. James A. Morris, Chairman
Dr. Jack S. Mullins
Mr. Nathan Kinion
Dr. James Colbert
Miss Maisie Bookhardt
Mr. Robert H. Fellers
Mrs. Virginia Stewart

Tasks assigned: (1) Inventory present educational opportunities
(2) Study and recommend future educational needs

At the beginning of the discussions among members of the Sub-Task Force for Educational and Training Needs it was recognized that there was some overlapping of their functions

with other groups. At the outset, the need for a statewide health manpower survey was stressed as a concern of this group. However, such a study is the direct responsibility of another sub-task force. Although many needs are well known and beyond present training capabilities, there is urgent need for more detailed data for use in long-range planning.

To illustrate the known needs for more health manpower training, the following table shows figures derived from the *Health Manpower Source Book,* Public Health Service Publication No. 263, Section 20, United States Department of Health, Education, and Welfare, 1969.

Ratio of Health Practitioners to Population

Practitioners		Population South Carolina	U. S. Average
One Physician	per	1,299	741
One Dentist	per	4,545	2,128
One Pharmacist	per	2,008	1,595
One Nurse	per	461	330
One Occupational Therapist	per	142,857	26,316
One Radiologic Technician or Technologist	per	5,236	4,016

It should be recognized that the criterion of comparison with United States averages is not necessarily the best measure of need. There is no universal agreement on what can be termed an ideal practitioner-population ratio necessary to supply adequate medical and health services. Nor is there common agreement on exactly what comprises adequate health services. There are wide variations of judgment on these questions.

Ratios for occupations other than shown in the above table are not available. Further, these data do not indicate locations in the State where severest shortages exist. Hopefully, a health manpower survey would furnish the information needed to plan for training in the critical areas, occupationally and geographically. It is recognized that because of the present-day mobility of the population the geographic distribution of training programs is not as important as it was in the past. This is especially true of physicians and dentists, yet these are the

groups about which the most detailed information is readily available.

Coordination among allied health manpower training programs is a recognized need in order to decide who should review and approve them, and to avoid duplication. Without such coordination there is real danger of over-training in some occupations and leaving gaps in others. However, little can be done along this line before results of a detailed job inventory or survey is completed.

The Cooperative Area Manpower Planning System (CAMPS) is an effort in the direction of coordination of training programs. Its scope is industry wide and its efforts are directed primarily toward identifying and training for employability persons of the lowest education and economic levels. Its purview is considered to be too broad in one sense and too restricted in the latter sense to function effectively in the necessarily specialized coordination of health manpower training. Therefore, *it is recommended that a special committee be established to coordinate allied health manpower training at all levels in the State. The group should consist of representatives of the State Board of Health, the Technical Education Committee, the S. C. Medical University, the State Department of Education's Vocational Education Division, the Commission on Higher Education, and any other agency directly concerned with health manpower training.* This committee would act as a clearinghouse for planning health-related curricula and move toward standardizing course content for accreditation purposes. The latter would, for example, permit a person who has completed a two-year program to use his credits to continue toward a baccalaureate degree.

The question of the physician's assistant was studied. There appears to be little or no uniformity of definition or practice of these semi-professionals among the states in which they are trained and used. Furthermore, little if any coordination of training programs could be discovered. Where such training is being conducted each state plans its program to meet the special needs of the area. Academic training time varies from only three months plus one year's "preceptorship"

in the State of Washington to two years in North Carolina. Various periods of "on-the-job" training are required, generally taking the form of working directly with a practicing physician who assigns more and more responsibility as the understudy progresses in competency.

In view of the critical shortage of physicians in the State and the training time required, the physician's assistant could be trained in a relatively short period and fill part of the interim need. Such persons could perhaps be trained and working while the Medical University gears for additional expansion programs to produce more physicians. Training of practicing physicians to use these assistants would be part of the program. Sanction of the South Carolina Medical Association would be necessary. The questions of licensing and legal responsibility would also have to be resolved at some point along the way. *It is recommended that the Medical University of South Carolina take steps to establish as soon as possible a program to train physician's assistants.*

The lack of health educators in South Carolina was discussed. Since this is a relatively new profession, not many colleges are geared to turn out trained personnel. Two specific problems were presented: (1) the need for field educators to teach the rudiments of self health care to families in the very low economic levels, and (2) the need for health educators in public schools. The first is an immediate need and probably many competent people could be employed in some of the anti-poverty, health, and welfare agencies. The opportunities for employment in public schools will depend upon the school systems' inclusion of special health education courses in their curricula. Since the Chairman of this sub-task force is the Commissioner of Higher Education for South Carolina, he agreed to work on the problem through his agency. Thus no formal recommendation to the Commission was deemed necessary or appropriate.

Interest was expressed in an inventory of opportunities for health career training in South Carolina. It was agreed that this purpose would be adequately served by updating the Health Careers Directory published by the Health Education

and Recruitment Project of the South Carolina Hospital Association. It was ascertained that the updated information has been collected and that the only reason for delay in publishing is the lack of financing. At this writing this publication is being printed and will be available for distribution in early fall.

Because of the nature of the problems presented and the fact that plans for attacking them are under way by other agencies and organizations, it was not considered appropriate to make other specific recommendations. Rather, it was the consensus that the Sub-Task Force on Education and Training Needs *endorse* the three following specific projects which are already in various stages of planning and/or accomplishment:

(1) The conduct of a comprehensive statewide health manpower survey

(2) The promotion by the Commission on Higher Education of a program for training health educators

(3) The publishing of an updated Health Careers Directory for South Carolina.

Report of

Sub-Task Force for Study of Licensing or Standards for Health Professions

Members: Dr. K. J. Boniface, Chairman
Mr. Robert V. Heckel
Mr. Harry Hiott
Senator Frank Owens, M.D.
Miss Ira Dean Lane
Mr. Thomas Martin
Dr. Alexander Donald

Task assigned: Study current licensing practices and recommend changes and improvements

To gain a broader background and insight into the problems of licensing, the Chairman of the Sub-Task Force for Study of Licensing or Standards for Health Professions made a special study of licensing practices of other states as well as South Carolina. At the outset the idea was expressed that the ade-

quacy of our present licensing laws and how they may be improved are important subjects for discussion.

According to the United States Department of Health, Education and Welfare's *State Licensing of Health Occupations*, Public Health Service Publication Number 1758 (October 1967), the following health personnel are licensed to practice by all States and the District of Columbia:

Dental Hygienists
Dentists
Professional Engineers*
Practical Nurses
Professional Nurses
Optometrists
Pharmacists
Physicians (M.D. and D.O.)
Podiatrists
Veterinarians

Chiropractors and physical therapists are licensed by 49 of the jurisdictions. Fewer states license the following health personnel:

Occupation	Number of States Licensing
Psychologist	36
Sanitarian	30
Midwife	23
Optician	17
Clinical Laboratory Director	13
Other Clinical Laboratory Personnel	10
Naturopath	8
Social Worker	5
Nursing Home Administrator	2
Hospital Administrator	1
Health Department Administrator	1
Radiologic Technologist	1

California, licensing 21 health occupations, leads all 51 jurisdictions in this respect. Florida, Hawaii, and New Jersey each license 20. Among other states the number ranges down to a minimum of 12.

It was generally conceded that the primary purpose of licensing is for public welfare, to insure minimal standards of

*Includes environmental health engineers, such as industrial health, public health, or sanitary engineers.

service, and as a secondary consideration, restrictive, to protect a trade or profession providing an essential service to the State.

Means of accomplishing the purposes of licensing include fees, examinations, standards of training or education, conditions prerequisite to licensing such as citizenship, residency, etc., and continued supervision exercised by the renewal of licenses and/or revocation.

Upholding high professional standards with the need for rapidly increasing the supply of health manpower was recognized as a real problem. Changes in the licensing laws of the State would involve:

(1) Increasing/Decreasing standards of Service
(2) Facilitating/Deterring entry into a profession or trade
(3) Increasing/Decreasing continuing supervision of a profession or trade.

It was recognized that the question of licensing of health professionals needs a great deal of continuing study. Much of the question of requirements and restrictions in licensing and the setting of standards depend upon what the public demands and is willing and able to pay for.

A carefully thought out motion was passed which pinpoints the basic guiding philosophy of the study of this group. The motion follows:

"The basic principles of licensing practice must uphold a high standard of performance, and at the same time, we recognize the demand and usefulness of individuals of varying levels and degrees of ability. We find that there should be designation of licensed ability and areas of responsibility."

Since thorough study and thoughtful discussion convinced the group that the licensing laws of South Carolina are reasonably adequate, no specific recommendations for changing them are proposed at this time. However, there is recognized the need for continued, constant study of the licensing practices in South Carolina. Improved public service may be anticipated from a change in the licensing practices with regard to hearing aid salesmen, clinical laboratories and their employees, oxygen therapists, ambulance attendants, etc.

In the interest of improved public service, it is important that adequate training facilities for the various health care skills

be available in South Carolina before the standards of care are raised by new licensing practices. If licensing practices are prematurely changed before adequate training facilities and personnel are available, the effect will probably be to diminish services and increase costs. Therefore, it is *recommended that future committees establish active communication between those studying licensing needs and those studying educational needs.*

Appendix E is the latest compiled list of licensed health professions and occupations in South Carolina and the licensing authority in each case.

Report of

Sub-Task Force on Recruitment and Job Placement

Members: Mr. Zack Weston, Chairman
Mr. Hugh Sherer
Mr. Joe Dusenbury
Mr. Thomas Shaw
Mrs. T. K. McDonald
Mr. Reuben Gray

Tasks assigned: (1) Study and recommend ways to keep prospective trainees informed of opportunities open in the health field.

(2) Study and recommend ways to insure that graduates are informed of job opportunity openings.

This group quickly came to the conclusion that since the demand for health manpower is growing faster than the supply, two basic tasks are indicated for the future. First, the most effective use should be made of the existing supply of manpower. Second, the supply should be increased as rapidly as consistent with effective recruitment programs and expansion of quality training programs.

The Sub-Task Force's assessment of the recruitment and placement problems in the area of health manpower follows, along with its judgment as to effective means of resolving

them. It should be noted that the recommendations are made with the knowledge that some of them are already being implemented by some organizations, the most noteworthy being the Educational Services Program of the South Carolina Hospital Association. It is hoped that our recommendations will encourage other groups to add their efforts and intensify their activity along these lines. A great deal of effort on the part of many organizations and individuals will be required to solve the problems.

Recommendations:

1. Personal Commitment by Administrators of Health Facilities

In most enterprises, it is axiomatic that no important activity is initiated or can be sustained without the active support of top management. Certainly experience has shown this to be true regarding programs sponsored by big business and government. Where top management has made a commitment to move the organization forward, forward movement has occurred. Where top management has been passive there has been little progress.

Our first *recommendation,* therefore, is *that those occupying key administrative or managerial positions in hospitals, nursing homes, public health services, and laboratories should accept personal responsibility in developing recruitment and training programs for their occupational needs.*

2. Special Recruitment Materials and Programs

Because of the necessity of interesting large numbers of new workers, if long-term recruitment needs are to be met, employers in health services must find new approaches to convincing young people that the health care field represents one of the most essential, challenging, productive, and rewarding career possibilities open to them.

Our second *recommendation,* therefore, is *that health facilities, alone or acting together, undertake special recruitment efforts aimed at young people throughout the state,* including:

(a) Production of recruiting-training films to provide information on the continuing manpower needs for health care.

(b) Development of printed materials in the form of information kits describing specific occupations for distribution at high school or junior high school levels.

(c) Establishment of a special program with appropriate printed materials directed to high school guidance counselors for the purpose of emphasizing career opportunities in the health services.

(d) Promote organization of clubs aimed at encouraging young people to enter health careers. Such organizations would be similar to Future Farmers of America (FFA) and Future Teachers of America (FTA) clubs now in existence in many high schools.

(e) Establishment of a speakers bureau which would provide health professionals for recruiting presentations which would include their own careers as models.

3. Recruiting Previously Trained Health Workers

Efforts should be made to bring back to the health field the large number of professional, technical and skilled workers who have either left the labor force or shifted to other lines of work.

Our third *recommendation*, therefore, is *that employers in health services plan programs designed both to recruit and bring back into the field workers previously trained in health care but now in other pursuits*. It is estimated that thousands of women—registered and practical nurses, technicians, and therapists of various types—who have left their jobs to raise families or for other reasons can be induced to return to the health field if arrangements for part-time employment, refresher training, child-care services, or other services can be improved. Because two-thirds of all health workers are women, they have a special need for flexible and part-time work schedules.

4. Reviewing Hiring Specifications and Licensing Requirements

In some areas of work, recruitment in the health services field is being hampered by artificial or unduly rigid hiring specifications. Similarly, the licensing requirements for pro-

fessional or technical occupations are preventing many potential workers from pursuing careers in these lines of work.

Our fourth *recommendation*, therefore, is *that administrators and managers of health facilities join other health professionals in eliminating outmoded specifications which curtail recruitment.* What is required for breakthroughs on any significant scale is the willingness to meet special circumstances with special action. These should include special initiatives in recruitment; adaptation of traditional employment criteria to allow hiring of a certain proportion of promising candidates who may not immediately meet "normal qualifications"; authorization of special on-the-job training, etc.

5. Intern and Summer Job Programs

The value of summer job and internship programs in introducing young people to health careers is becoming increasingly evident. Such opportunities are needed today more than ever before.

Our fifth *recommendation*, therefore, is *that health facilities cooperate with public school systems, colleges and universities, and public employment services to expand summer job opportunities and internships for both high school and college age young people, since these opportunities offer concrete experience while solving a perennial problem for the student—a summer job.*

6. Improvement of Wages and Working Conditions

Another logical step toward attracting and retaining more workers in the health field is the improvement of wages and working conditions. It is estimated that low wages and poor working conditions account for an annual turnover rate of 60 percent for nurses, 70 percent for nurse aids, and more than one-third for practical nurses.

Our sixth *recommendation*, therefore, is *that higher salaries and greater promotion opportunities be combined with more convenient and favorable working conditions to cut back the fantastically high rate of labor turnover in the health field.*

7. Better Utilization of Present Workers

The placement process would benefit greatly from better utilization of workers already employed in providing health services.

Our seventh *recommendation*, therefore, is *that hospitals and other employers be encouraged and assisted to analyze the content of health service jobs to insure that the time of skilled workers is not wasted on routine tasks and that their skills are fully used. Where necessary, new job classifications should be added to the traditional occupational structure to facilitate the employment of lower skilled workers, who are not in short supply, for chores which currently take up the time of higher skilled personnel.*

8. Furnishing Manpower for Low-Income and Rural Areas

There is a need to develop new programs to channel adequate manpower to low-income areas and rural areas which have not succeeded in attracting an adequate health work force.

Our eighth *recommendation*, therefore, is *that health services administrators explore the development of federal or local government incentives, supplemented by financial assistance from private foundations, to meet the critical need of health care workers in low-income areas and rural areas.*

9. Placement Service Assistance

Placement assistance agencies can be valuable recruitment aids, and such activity is to be encouraged. A certain unique potential inherent in the South Carolina State Employment Service should not be ignored—potential growing out of both its geographical coverage and the variety of vocational inquiries it is equipped to process.

Our ninth *recommendation*, therefore, is *that employers in health services use the State Employment Service not only for vacancy listings and referrals but also to recruit candidates who would not normally view themselves as applicants for health care jobs.*

10. Cooperative Efforts With Other Organizations, Agencies and Institutions

Our tenth and final *recommendation is that health facilities utilize and seek the cooperation of other public and private organizations, agencies and institutions in alleviating the critical shortage in the health field.*

OBSERVATIONS AND CONCLUSIONS

At the outset, the Health Manpower Task Force was purposely not given instructions as to methods of procedure or specific goals. The group was requested to use complete freedom and initiative in making studies of the health manpower needs of the state. It was reasoned that by this approach, more objective viewpoints and more originality might be demonstrated in efforts to reach practical and useful conclusions.

In September 1963 the National Commission on Community Health Services appointed a Task Force on Health Manpower to determine the most efficient methods of providing the manpower required for the provision of community health services. In its report, which was published in 1967 the following statement appeared:

> "Effective planning at the federal, state, and local levels for the recruitment, education, and use of personnel is basic to assure an adequate supply of health manpower. Governmental and voluntary health agencies, professional and occupational groups, educational institutions, and employers of health personnel must work cooperatively to improve planning related to health manpower."

The report also stated that fragmentation of health services among numerous agencies and jurisdictions results in misuse of manpower.

The national task force report listed twenty-three separate recommendations. In the judgment of the group they would, if implemented, contribute significantly to the solution of health manpower problems on the national, state, and local levels. A number of the actions recommended are being undertaken. Some of the efforts have been in effect for many years. How many were initiated because of the study is unknown.

Although the report mentioned above was not made available to members of the South Carolina Health Manpower Task Force in order to encourage independent effort and originality, some of the recommendations proposed by the South Carolina group in this report are similar to those offered by the national task force. Similarly, the value of the study depends upon the use to which it is put. Coercion to implement recommendations is neither feasible nor desirable, except within agencies and other organizations. Voluntary, enthusiastic cooperation among existing agencies and organizations is, in the collective judgment of the group, the most effective way to attack the problems.

Hopefully, this report may suggest methods of approach which have not yet been explored. It is hoped that the work of this task force will contribute toward the inspiration of all concerned to increase their efforts to solve the state's health manpower problems.

APPENDIX A

Adopted:
September 18, 1968

MANPOWER STATEMENT
FOR THE COMPREHENSIVE OR
COMMUNITY HEALTH PLANNING PROGRAM
SOUTH CAROLINA STATE BOARD OF HEALTH

In the Declaration of Purpose of Public Law 89-749, The Congress stated "...fulfillment of our national purpose depends on promoting and assuring the highest level of health attainable for every person, in an environment which contributes positively to individual and family living . . ."

We are at a time when scientific knowledge and technology are providing the means for improving the health of every member of our society. The base on which the protection of health and provision of care depend consists of the individuals who are engaged in the health occupations. Their preparation, the use of their skills, and the organizations and institutions in which they work have become matters of deep public concern. At no time have the disparities between the expectations and need for health services and the capacity to supply these services been more obvious. The schools of health professions and occupations, hospitals, public and private agencies, and those who work in the health occupations are all taxed beyond their capacities to render care and to protect the health of every member of our society. Even if it were possible to envision the ideal staffing for health services, the continuing development of new knowledge and techniques, new patterns of service, new methods of payment are all constantly changing the needs for both numbers and varieties of health workers.

The State should make every effort to provide within its total resources all that is necessary to insure an adequate supply of trained health manpower personnel.

To attack the problem of increasing health manpower deficits we propose:

1. To establish and maintain an up-to-date inventory of health personnel.
2. To examine the duties and functions of health workers to determine what can best be done by each worker and recommend means by which highly skilled health professionals may be relieved of tasks which could well be done by less highly trained persons and to encourage the training and employment of "sub-professionals."

3. To consider and recommend alternative methods for the delivery of health services, such as community health centers, hospital-based outpatient services, home health services, etc., to make more efficient use of available health personnel.

4. That a commission be established and authorized to set uniform statewide minimum standards for and issue licenses to health practitioners who are not currently covered by such provisions.

5. That structure and opportunities be provided so that subprofessionals can, through inservice education and extension courses, qualify for occupations in higher classification.

6. That an exhaustive study be made of the current university and medical school physician-training programs with a view toward shortening the time lapse between high school graduation and beginning practice.

7. That the state should make immediate and continued expansion and improvement in educational programs and facilities in the health field.

8. That a program of graduate education for nurses be started.

NOTE: Numbers do not indicate priority.

ADDENDA

In terms of traditional standards, four efforts have been made to calculate the human resources needed for the continued expansion of South Carolina's health system. One relates to institutional personnel, one to county public health personnel, one to mental health personnel, and one to professional health personnel in general; and three different methods of calculation have been used.

The estimate of institutional health personnel needs was obtained by adding together desires reported by responding health facilities. For selected personnel requiring health training or experience—and therefore omitting the "hotel-keeping" or non-health personnel—results were as follows:

SELECTED CATEGORIES OF HEALTH PERSONNEL REQUIRED IN HEALTH FACILITIES, SOUTH CAROLINA, 1965-70

(Source: S. C. Employment Security Commission, Manpower Requirements for Health Facilities in S. C., Columbia, 1966)

Occupational Title	Employment	Expansion Needs	Replacement Needs	Total Additional Needs	Completing Training	Unmet Need
	1965	1970	1970	1970	1965-1970	1970
(1)	(2)	(3)	(4)	(5=3+4)	(6)	(7=5−6)
Total[a]	10,777	4,742	5,265	10,007	2,733	7,274
Nurses						
Registered	2,756	1,202	1,550	2,752	1,595	1,157
Anesthetist	112	94	30	124	52	72
Practical Licensed	1,347	812	630	1,442	732	710
Technicians						
Med. Technologist	305	133	80	213	141	72
Med. Lab Assistant	117	65	50	115	71	44
X-Ray Technician	150	65	65	130	53	77
Surgical Technician	172	162	100	242	216	26
Clerks						
Med. Record Clerk	132	51	35	86	4	82
Med. Supply Clerk	38	22	30	52	0	52
Ward Clerk	263	234	150	384	23	261
Diet Clerk	54	22	30	52	1	51
Auxiliaries						
Therapy Aid	56	83	16	99	3	96
Psychiatric Aid	822	375	170	545	4	541
Nurse Aid	2,805	900	1,675	2,575	517	2,058
Orderly	780	315	310	625	131	494

(a) Includes only occupations requiring health experience or training.

The estimate of county public health needs was obtained by applying a standard published at the end of World War II and not since revised.[1] The basic standard per 50,000 population was:

Medical Officer of Health	1
Sanitary Engineer	1
Sanitarian	1
Public Health Nurses	10
Clerks	3

To these were added for each 150,000 of population:

Dentist	1
Dental Hygienists	2
Health Educator	1
Laboratory Personnel	3
Veterinarian	1
Statistical Clerk	1

The basic standard would require 800 public health workers in South Carolina, of whom only 500 have been budgeted by county health departments.[2] This is without counting 50 dentists and 100 dental hygienists required by the supplemented standard, and an additional 500 nurses if they were to do bedside nursing for which demand is now becoming effective under the home health services program.

A third approach, which has been widely used as justification for new training programs, has been to compare the ratio of professionally trained persons in South Carolina with that which prevails in the United States, and to measure the shortfall. For the principal categories of professionally trained health personnel, the result is as follows (page 27):

[1] H. Emerson, *Local Health Units for the Nation*, New York Commonwealth Fund, 1965.

[2] State Board of Health, *Eighty-Seventh Annual Report:* Columbia, 1966, Page 256.

MEMBERS OF SELECTED HEALTH PROFESSIONS

		No.	Rate per 100,000		Need	Gap
		S. C.	U. S.	S. C.		
Physicians 1965	Total[1]	2,000	153[4]	81[3]	....	....
	Private[2]	1,550	92	62	2,250	700
Dentists 1965	Registered	578	56	23	1,407	829
	Active	688	45	20	1,098	610
Nurses 1964	Registered	6,834	650	275	....	....
1962	Active	5,244	298[6]	214[5]	8,700	3,450

[1] Estimated number living, rounded
[2] Estimated number actively practicing, rounded
[3] Civilian only
[4] Including military
[5] Ratio estimated at 187 in S. C. Nurses Association, *Nurses for South Carolina*, 1964
[6] Ratio 319 in 1966

(Sources: *U. S. Statistical Abstract*, 1967 and S. C. State Board of Health, *Annual* Report Statistical Supplement for 1964)

The distance between the supply of trained health personnel in South Carolina and that in the United States will increase during the next few years owing to the difference in the rate at which new entrants are being produced:

GRADUATES ENTERING SELECTED HEALTH OCCUPATIONS 1966

		Number	Rate per 100,000	
		S. C.	U. S.	S. C.
Physicians		68	4.0	2.6
Dentists		0	1.6	0.0
Registered Nurses:	Total	288	17.7	11.1
	baccalaureate	30	2.8	1.1
	diploma	232	13.2	9.0
	associate	26	1.7	1.0
Practical Nurses:		274	12.9	10.6

(Source: U. S. HEW, *Health Manpower Perspective 1967*, Public Health Service Publication No. 1667)

All of these calculations constitute useful points of departure, although none of them, as it stands, has been or probably would be adopted as the basis of a training and hiring program to be carried through within the next few years. For this, there are several reasons.

Very great changes are occurring in the roles played by the various kinds of health personnel. It is well known, for example, that

the private practitioner of today is not the private practitioner of twenty or thirty years ago: He has increased his productivity by staying by his office or hospital rather than making home visits, using more equipment, relying more on screening by nurses and technicians and on referrals to specialist colleagues, seeing more patients, having a longer waiting list for appointments, prescribing more effective medicines, and working in an urban center where he stands more chance of finding congenial colleagues and keeping up to date. In the South, moreover, one third of private practitioners share costs and increase income by working in partnership rather than solo. While the supply of doctors has not risen proportionately to population, there has been a marked increase in the number and variety of para-medical personnel. Physicians in private practice were one in ten of the 15,000 trained persons engaged in health occupations in South Carolina in 1965, or one in fifteen of an estimated 24,000 persons employed in providing health care.

The registered nurse is also not what she was twenty or thirty years ago. She comes to this work by way of college education instead of hospital apprenticeship; she tends to be salaried rather than self-employed; her employer tends to be a hospital, which expects her to serve many patients of many doctors, and to use her judgment as to which responsibilities she discharges personally, which she delegates to aides, and which she throws back on to a doctor if one is available; and she tends to expect a status corresponding to this role and to her college diploma. The change in the role of the registered nurse has been accompanied by a trend towards dilution of longer-trained personnel. There is a tradition that the ratio of Registered Nurses to Licensed Practical Nurses to Nurses Aides in hospitals should be 50: 30: 20. In fact, it was 37: 17: 46 in general hospitals and 18: 7: 75 in special hospitals in South Carolina in 1965. This would suggest a prime need for training and upgrading nurse aides and unlicensed practical nurses, much as some South Carolina industries are doing with their less skilled personnel.

Other health professionals besides doctors and nurses have also begun to be employed. Some are patient-oriented, such as physical therapists and medical social workers, both with masters' degrees; they indicate a tendency to treat health restoration in broader terms than medical intervention; and the pressure towards establishment of a state school of social work has come more from health than from welfare agencies. Others are laboratory-oriented, as with medical technologists. Others again are management-oriented, as with various categories of hospital administrators.

With the rise of these many health professions, the practice has appeared of speaking of health activities as teamwork. If applied to the treatment of the individual patient, the term presumably means that in all serious cases the patient's recovery is the responsibility of

a team in which every professional has his well-defined role and of which the patient's doctor is the leader.

This contrast with the days when the doctor stood out in a one-to-one relationship with his patient has been symbolized also by the coming into use of some other new but unclear terms, such as "paramedical personnel," "ancillary personnel" and "allied health careers," which are often applied indifferently both to the new kinds of college-educated health professionals and to the array of health assistants, technicians, secretaries, auxiliaries and aides, the better-trained of whom are high school graduates or have junior college associate degrees, and the least educated of whom are barely literate.

The number and variety of personnel needed is, to some extent, a function of changing organization. The hospital has come to dominate the scene. One South Carolinian in eight goes to a hospital each year. Nine-tenths of births (two-thirds among Negroes) and two-thirds of deaths now occur in local hospitals. In a metropolitan area, one outpatient visit in six is to a hospital clinic. In the capital city, one mother in five has her baby in a hospital emergency room; in the State, less than one in ten pays a non-professional local midwife. Most doctors get some and some earn all of their income from practicing in a hospital; and some hospitals employ salaried physicians to use their facilities on behalf of ambulatory patients, especially in the emergency room. Meanwhile, more than half of urban and nearly all rural South Carolinians get immunizations from nurses at public health or hospital clinics. In short, the organization for delivering medical care has changed and is changing, so that it too cannot be taken for granted.

Thirdly, one must note that the supply of trained manpower in any kind of work is a function of many variables. Two of these are particularly important because they can be modified by policy decisions. One consists of the rewards that lie ahead of the new entrant, in terms of remuneration, working conditions, and self-fulfillment. The other consists of the obstacles of time, cost, and effort that stand in the way of new entrants. These two together have added up to produce a situation in which recruitment for health work has been difficult. We get what we pay for; and to say that there is a shortage of health personnel is to say that we have not paid for a more adequate supply. This is not, however, merely a matter of getting the consumer to pay more, as patient or taxpayer, important though this is. It is also a matter of practical imagination and initiative. Most organizations of any size, including hospitals and public health departments, are susceptible of functional analysis and redefinition of roles that would enable them to use less personnel with greater efficiency and with more satisfaction to both personnel and clientele; and hospitals are in a peculiarly delicate situation, with responsibility divided between administration and

medical staff. There are also many forms of training that can be organized along new lines, especially to increase the supply of those health workers whose training costs less and lasts less long than that of doctors. The 1960s have thus seen the beginning of training programs for mental health workers of many kinds by the State Mental Commission at Columbia, for auxiliaries by the Technical Education Committee at Greenville, for a wider range of health workers at the Medical College of Charleston and for degree and associate degree nurses at the University of South Carolina and its regional campuses. They have also brought special in-service training programs provided by Clemson University for sanitarians, by the University of South Carolina for pharmacists in certified extended care facilities, and by the State Board of Health for school nurses, as well as proposals by the Medical College for continued education of all kinds of personnel treating heart, cancer, and stroke. This revitalization and diversification of pre-entry and continued training on the part of a number of autonomous State authorities has coincided with a long-delayed increase in the renumeration and fringe benefits of many categories of health personnel, from doctors who have raised their fees to unskilled hospital workers brought under minimum wage guarantees. These adjustments have been spontaneous, uncoordinated, and incomplete, because the State has no machinery for planning any kind of manpower program and no health policy in terms of which it could program the supply of health manpower. It is with auxiliary personnel that it is relatively easy to lessen the gap between South Carolina and the United States. Even here, however, there are a number of problems that have to be faced. This state lacks any authoritative definition of the responsibilities of the various categories of health auxiliaries, with a resulting tendency to invent new categories unknown to the law and the professions. This state lacks any definition by the health professions and the institutions of higher education of common and divergent elements in the curricula for training health auxiliaries. There is no agreement by the State's institutions of higher education on the ways in which auxiliary training may be credited towards full professional training, so that it may be a possible first step in a career of public service rather than a blind alley. Accreditation has not yet been achieved by some of the State's thirteenth and fourteenth grade institutions that have set out to prepare for associate degrees in health. Nor has there been much utilization of medical corpsmen's experience, except by the federal government with its corrective therapists at Veterans Administration hospitals and the case-contact men supplied to the State Board of Health for syphilis control. Some partial approaches have been and are being made, by specific state agencies and private groups; but a coordinated effort to solve this critical problem has not yet emerged.

Where the situation is truly grave is at the higher or professional

level. Without supervisory or directive personnel, the necessary and inevitable multiplication of auxiliaries is fraught with obvious danger.

Yet it is at this higher level that it takes longest to fill the gaps. The State's past policy of not providing training facilities within the State for dentists, social workers, nurse supervisors, or physical therapists, and not training enough doctors, has left it deficient in all kinds of professional personnel required for getting maximum benefit from modern medicine.

One way of alleviating some aspects of the shortage might be by retrieving lost personnel. For example, 25 per cent of South Carolina's registered nurses and physical therapists are professionally inactive, while another 8 per cent of registered nurses are in doctors' offices and 2 per cent in schools. With salary improvements, arrangements for part-time employment, opportunities for the day care of young children, potentialities for responsibility, and some updating and reorientation, it might be possible to recover enough lost nurses to staff an expanding home care service if not to meet requirements for nursing in nursing homes—provided persons with less-scarce skills be made available to doctors' offices and schools. Similarly some aspects of the doctor shortage might be met by middle-aged doctors continuing to use their skills in salaried fixed-hour employment instead of retiring; and this is what some are beginning to do in some hospitals and emergency rooms.

Principal reliance, however, will have to be placed on recruiting additional members of all health professions. In all instances, this means expending training opportunities; and in some instances this may include shortening or accelerating the training. In most instances, it means also increasing the financial rewards and generally making the jobs and careers attractive. Since other trainings take less time, the doctor shortage will be with us longest, and will leave no alternative but to draw directive and supervisory personnel for health programs from all health professions.

APPENDIX B

RANKING OF SOUTH CAROLINA AMONG THE 50 STATES IN SUPPLY OF HEALTH PROFESSIONALS

Active Non-Federal Professionals	South Carolina			Number per 100,000 Civilians		
	No.	No. per 100,000 Civilians	Rank	High	Low	U. S. Aver.
Physicians (1967)	1,910*	76	47th	199 (N. Y.)	69 (Alaska & Miss.)	131
Dentists (1967)	569	23	50th	67 (N. Y.)	23 (S. C.)	46
Registered Nurses (1966)**	5,619	217	41st	537 (Conn.)	133 (Ark.)	313
Pharmacists (1967)	1,250	48	41st	104 (Mass.)	28 (Hawaii)	62

Source of above: Health Manpower, U. S. 1965-1967
(PHS Pub. No. 1000, Series 14, No. 1)

* Includes 4 Osteopaths

** The State Board of Nursing for South Carolina provided information that as of February, 1970 there was a total of 8,004 licensed nurses working in the State.

Based on an estimated population of 2,600,000 for the state, the following additional professionals are needed to bring South Carolina up to the United States average:

Physicians	1,430
Dentists	598
Nurses	2,496
Pharmacists	364

1967 GRADUATES IN HEALTH PROFESSIONS AND OCCUPATIONS

(Source: Health Resources Statistics 1968 — PHS Publication No. 1509)

Occupation	United States	South Carolina	
Medicine and Osteopathy	8,148	80*	
Dentistry	3,360	24	Students (1st class graduates 1971)
Medical Technology	3,845	23	
Dental Hygienist	1,739	43	Students (1st class graduated in 1969)
Dental Assistant	1,963	13	
Veterinary Medicine	1,064	0	
Nursing, Registered	37,931**	315	
Nursing, Practical	27,644	218	
Optometry	484	0	
Pharmacy	3,744	54	
Medical Records Librarian	192***	0	
Health Education	2,728****	0	
Occupational Therapy	534	0	
Occupational Therapy Assistant	207	0	
X-Ray Technology	3,827	48	
Physical Therapy	1,005	0	

*The Intern and Residency Committee of the Medical University of South Carolina provided the following information on graduates:

Class Of	Med. Univ. Graduates	Internships In S. C.	Internships Outside S. C.
1967	80	32	48
1968	66	34	32
1969	72	21	51
1970	80	33	47

The S. C. State Board of Medical Examiners furnished the information that of approximately 2,000 physicians in S. C., approximately 1,100 were born, educated, and originally licensed in the State.

**

Type Training	U. S.	S. C.
Diploma	27,110	159
Assoc. Degree	4,639	125
Bachelor's Degree	6,122	31
	37,931	315

*** Certificates and degrees

****

Degree	
Bachelor's	1,468
Master's	1,116
Doctor's	144
	2,728

APPENDIX C

COMPARISON OF HEALTH MANPOWER IN SOUTH CAROLINA WITH THE UNITED STATES AND PUBLIC HEALTH SERVICE REGION 4[1]

Professions and Occupations	Number per 100,000 Civilian Population		Number in South Carolina	Total number needed in S. C. to match U. S. Average	Rank(*) of S. C. Among 6 States in Region 4
	U. S.	S. C.			
Medical Students (1967-68)	17.7	11.7	302	458	4
Medical College Graduates (1967-68)	4.1	2.5	66	106	4
Approved Internships (Sept. 1967)	5.3	1.6	42	137	5
Approved Residences (Sept. 1967)	17.0	6.2	161	440	5
Active Non-Fed. Physicians, M.D. (1967)	135	77	2000	3497	5
Active Non-Fed. Physicians, D.O. (1967)	6	Less than 0.5	4	155	4,5,&6[3]
Dental Students (Oct. 1968)	7.8	1.7	45	202	4
Dental College Graduates 1967-68)	1.7	0	0	44	[illegible][4]
Active Non-Fed. Dentists (1968)	47	22	581	1214	6
Licensed Optometrists (1967)	10.4	6.0	158	274	4
Pharmacy Students (1967-68)	7.3	9.1	228	183[5]	4
Pharmacy Graduates (1967-68)	2.1	2.7	68	53[5]	3&4[6]
Active Pharmacists (Jan. 1967)	62.7	49.8	1250	1573	4
Registered Podiatrists (1967)	4.3	0.6	15	113	5
Veterinarians (Jan. 1968)	13.0	7.5	193	337	6

Nursing Program Enrollments (Oct. 1967)	71.8	42.6	1102	1859	5
Nursing Program Graduates (Sept. 1966-Aug. 1967)	19.4	12.2	315	502	4
Active Nurses (1966)	313	217	5625	8104	2
Dental Assistant Students (Oct. 1968)	2.3	2.1	55	59	2
Dental Assistant Graduates (1967-68)	1.2	1.7	45	31[5]	1
Dental Hygienist Students (Oct. 1968)	2.6	2.5	64	67	3
Dental Hygienist Graduates (1967-68)	0.9	0.9	23	23	3
Medical Technology Students (1966-67)	2.5	1.6	42	65	4
Medical Technology Graduates (1966-67)	1.9	0.9	23	49	5&6[7]
Registered Occupational Therapists (1966)	3.8	0.7	19	98	5&6[8]
Radiologic Technology Students (1966-67)	5.1	5.0	132	135	2
Radiologic Technology Graduates (1966-67)	1.9	1.8	48	50	2
Registered Radiologic Technologists & Technicians (1967)	24.9	19.1	505	657	3

Source: Health Manpower Source Book, P.H.S. Publication No. 263, Section 20, U. S. Department of Health, Education and Welfare, U. S. Government Printing Office, 1969.

Note: Figures not taken directly from this book were computed from data printed in the publication.

(1) Region 4 consists of Alabama, Florida, Georgia, Mississippi, South Carolina and Tennessee.

(2) Rank 1 means the largest number per 100,000 population, considered most favorable. Rank 6 means the lowest number, the least favorable.

(3) Alabama, Mississippi and South Carolina tied for lowest rank with less than 0.5 per 100,000 population.

(4) Florida, Mississippi and South Carolina had no dental college graduates for 1967-68.

(5) South Carolina exceeds U. S. average.

(6) Georgia and Alabama rank No. 1 and 2. Next are Mississippi and South Carolina with 2.7 per 100,000 population each.

(7) South Carolina and Florida tied for lowest rank with 0.9 per 100,000 population.

(8) South Carolina and Mississippi tied for lowest rank with 0.7 per 100,000 population.

APPENDIX D

Letter of Request for
Documentation of Need for Health Manpower Survey
and
Responses to the Requests

SOUTH CAROLINA STATE BOARD OF HEALTH
Columbia, South Carolina

November 4, 1969

Dr. James A. Morris,
Commissioner, S. C. Commission
on Higher Education
Coumbia, S. C.

Mr. B. Frank Godfrey,
Executive Director, S. C. Employment Security Commission
Columbia, S. C.

William S. Hall, M.D., *State Commissioner of Mental Health*
S. C. Department of Mental Health
Columbia, S. C.

Dr. Cecil H. Johnson, *Director*
Office of Vocational Education
S. C. Department of Education
Columbia, S. C.

Mr. A. Wade Martin, *Executive Director*, State Committee for
Technical Education
Columbia, S. C.

William M. McCord, *President*
Medical University of S. C.
Charleston, S. C.

Dr. Thomas F. Jones, *President*
University of S. C.
Columbia, S. C.

Dr. Robert C. Edwards, *President*
Clemson University
Clemson, S. C.

Dr. Charles S. Davis, *President*
Winthrop College
Rock Hill, S. C.

As part of the comprehensive health planning program, the Board of Health several months ago requested a 25-member task force to determine the needs for a state health manpower survey. This group is now accumulating and documenting all relevant data available on health manpower. Since you are engaged in teaching and training health or allied health personnel, the thought has occurred to us that you may like to share your ideas on this important subject. We are anxious to get your reaction as to the value of such a survey and specifically what use you will make of it if it is done. How would you use a 1969 copy of a S. C. Health Manpower Survey containing an inventory by county and forecast of future needs if you had one? How have you used the 1965 health manpower survey which was jointly prepared by the S. C. Employment Security Commission and the S. C. Hospital Association? What segments of the health manpower are you most interested in? What particular information would you like to have from a health manpower survey?

Should the survey be a continuing study? How often should summaries be made available?

If a health manpower survey is to be done, it is vitally important that we have your answers to these questions. We would like to have your reply sent to us on or before November 18, 1969.

W. H. Botts, Chairman
Task Force on Health Manpower
Office of Comprehensive Health Planning

South Carolina Commission on Higher Education
Columbia, South Carolina

November 7, 1969

Mr. W. H. Botts, Chairman
Task Force on Health Manpower
Office of Comprehensive Health Planning
Columbia, South Carolina

Thank you for your letter of November 4 in connection with the State Health Manpower Survey. You inquired as to the use that the Commission on Higher Education might make of such a survey.

The Commission is interested in all health personnel educated at the post high school level. A current survey would be of inestimable value in deciding what programs are needed for now and the future to meet the pressing health needs of the State. The Survey should certainly be done on a continuing basis if it is to be completely useful. The 1965 survey was very helpful in providing some benchmark against which to consider new programs.

We shall be glad to cooperate in any way in the development of the manpower planning process.

James A. Morris, Commissioner

South Carolina Employment Security Commission
Columbia, South Carolina

November 12, 1969

Mr. W. H. Botts, Chairman

Thank you for your letter regarding the work of the Task Force on Health Manpower. It could not come at a more opportune time for South Carolina.

Through Mr. Richey, who has attended most of the task force meetings in an advisory capacity, and Messrs. Jarvis and Weston, who serve directly on the task force, we have kept abreast of developments.

As you know, we have done a great deal of work in recent years to develop occupational data in South Carolina. This includes not only the health manpower survey a few years ago but the recently completed study entitled *Manpower Requirements and Resources in South Carolina, Industry and Occupation* which included some 15-20 health jobs. While these data have a great deal of utility, we are the first to recognize their inadequacies, and we are striving continuously to correct them.

The Commission is committed to our National policy of maximum development and utilization of all our human resources. This serves as our manpower policy and manpower program objective. Moreover, as chairman of the Comprehensive Area Manpower Planning System for South Carolina, I must necessarily concern myself with manpower planning for the entire State. Obviously, the approach is beyond the scope of the task force on health manpower and it may be beyond the resource capabilities of our State at present. Nevertheless, we should keep these goals in mind.

A health manpower survey containing an inventory by county and a forecast of future needs would be useful to this agency in discharging its responsibilities in connection with the Manpower Development and Training Act. This is how we used the 1965 health manpower survey.

If possible, any new work in this area should be extended beyond the manpower needs of hospitals and nursing homes. With the rapid change that is taking place in our economy, a continuing effort to measure manpower requirements and resources should receive a very high priority. Updating on an annual basis would appear to be adequate.

B. F. Godfrey, Executive Director

South Carolina Department of Mental Health
Columbia, South Carolina

November 14, 1969

Mr. W. H. Botts, Chairman

This will acknowledge receipt of your letter of November 4, 1969 regarding a state health manpower survey.

In order to be sure that I have answered your questions adequately, I am repeating and answering each question in the order in which they were asked.

1. How would you use a 1969 copy of a South Carolina Health Manpower Survey containing an inventory by county and forecast of future needs if you had one?

The two (2) most obvious uses of such a survey would be:

(a) To enable the South Carolina Department of Mental Health to orient internal In-Service and formal academic programs toward meeting future manpower requirements.

(b) To use the survey in an attempt to influence other educational institutions to develop and implement programs designed to meet future health manpower requirements.

2. How have you used the 1965 health manpower survey which was jointly prepared by the South Carolina Employment Security Commission and the South Carolina Hospital Association?

I have been advised by our Personnel Director and Hospital Administrators that the South Carolina Department of Mental Health did participate in this survey but we do not have a record of ever having received copies of the results of the survey.

3. What segments of the health manpower are you most interested in?

I would be interested in all categories or classifications that pertain to Mental Health and in particular, the professional segments (Psychiatrists, Psychologists, Social Workers, Nurses, etc.).

4. What particular information would you like to have from a health manpower survey?

(a) Short range (5 years or less) manpower needs, by classification.

(b) Long range (more than 5 years) manpower needs, by classification.

5. Should the survey be a continuing study?

The survey should be continuous only if it meets a need. If the survey is instrumental in influencing educational facilities to develop and implement programs designed to meet health manpower needs, then it should be continuous. However, if, after a reasonable period of time (5 years), it is determined that the survey did not bring about changes and efforts to meet health manpower needs, it should be discontinued.

6. How often should summaries be made available?

Preferably, on an annual basis but no less than once every two (2) years.

I hope that I have answered your questions adequately. If such a survey is conducted, the South Carolina Department of Mental Health is willing to participate.

If additional information is needed, please let me know.

William S. Hall, M.D.
State Commissioner of Mental Health

South Carolina Department of Education
Columbia, South Carolina

November 17, 1969

Mr. W. H. Botts, Chairman

In response to your recent letter related to the comprehensive health planning program and in particular to the state health manpower survey, I will attempt to answer each of your questions.

In relation to use of such a survey, our primary usage would be in determining job opportunities in the health occupations areas as they relate to the types of programs we in vocational education offer. The 1965 South Carolina Employment Security Commission and South Carolina Hospital Association health manpower study was used in a similar manner. The segments of health manpower that we would be interested in would include licensed practical nurses, nurse aides and orderlies, and dental assistants.

For our purposes, the survey need not be a continuous study, but should be updated at regular intervals (three to five years) to provide current data on job opportunities.

I trust that this response will be of value to you.

Cecil H. Johnson, Jr., Director
Office of Vocational Education

South Carolina State Committee for Technical Education
Columbia, South Carolina

November 10, 1969

Mr. W. H. Botts, Chairman

We appreciate your letter of November 4 and the excellent work that the Health Manpower Task Force is doing. Technical Education has long seen the need for current information on health manpower requirements and projections on a continuing basis.

It is most difficult for us to make proper management decisions in the absence of reliable and current data. Although the 1965 survey was a good study that has been of great help to us in planning our health education programs, it is now inadequate. We find ourselves forced increasingly either to conduct our own surveys of local health manpower needs or to rely upon the assurances of informed professionals in the area. There is the fear that we shall either over-train or under-train in particular categories in the absence of reliable information.

The 1965 survey has been used extensively both in the decision to construct a Health Careers Center at Greenville TEC and in the

subsequent curricular decisions that have been made throughout the state. Its statewide and regional projections have been of inestimable value.

We are pleased to note that the projected survey would contain an inventory by county and a forecast of future needs by county. This would be a real improvement over the 1965 survey and would be much more useful to us. We could then pinpoint training needs by center. More accurate determination of future needs would enable us to plan our facilities, personnel requirements, and budgetary needs more accurately and for longer periods ahead. We would be more assured of a continuing need for individual curricula, and we could phase out curricula or limit enrollments when the backlogs of health manpower needs are met.

Although we are interested primarily in the paramedical or allied health manpower needs ranging upward through the associate degree or two-year level, we would like to know also the statistics on other health personnel. We believe that TEC can make some positive contributions to health education by providing continuing education at various locations around the state.

We recommend that the survey be a continuing study, with annual or semi-annual summaries.

Please let us know if we can be of further assistance.

A. Wade Martin, Executive Director

Medical University of South Carolina
Charleston, South Carolina

November 17, 1969

Mr. W. H. Botts, Chairman

I am very pleased to reply to your letter of November 4, to Dr. McCord, concerning the opinion of the Medical University of South Carolina on the matters of a state health manpower survey.

The University is, of course, enthusiastically in support of such a survey since it will give specific needs against which program objectives can be developed and implemented. The distribution of health care in the State of South Carolina as well as the nation as a whole is a matter of first priority in meeting health needs.

We are interested in all segments of the health manpower survey and we will be particularly interested in experimental consideration for manpower development that will come out of such a survey. The survey should be a recurring event but enough interval to expect meaningful changes.

I do hope to see you in the near future when we can discuss

these matters at some length. Thank you for your request to comment and I send kindest personal regards.

James W. Colbert, Jr., M.D.
Vice President for Academic Affairs

University of South Carolina
Columbia, South Carolina

November 17, 1969

Mr. W. H. Botts, Chairman

This letter is in response to yours of November 4, regarding the need for a state health manpower survey. Apparently we did not receive the 1965 Survey and hence I am unable to provide any report of its use.

We would find a manpower survey useful in determining what actions we should take in our academic programs as well as in the services we are able to provide for the State. As a State institution we are responsive to the needs of South Carolina, not only in health related services, but in other professions as well.

I would hesitate to list any particular segments of manpower as being particularly important to us. We are interested not only in health manpower, but also in other types which are critical to the State and which could logically be trained by the University.

I believe the Commission on Higher Education would have great interest in a health manpower survey. If you have not contacted the Commission, I suggest you get in touch wtih Dr. James A. Morris, Commissioner.

If we can be of further assistance do not hesitate to contact me. We are very conscious of the needs of the State in health fields, and stand ready to assist you in every feasible way to meet them.

Thomas F. Jones, President

Clemson University
Clemson, South Carolina

November 17, 1969

Mr. W. H. Botts, Chairman

Reference is made to your letter dated November 4. By way of reply we are attaching a memorandum from Dr. Victor Hurst, Vice President for Academic Affairs, dated November 15 which is self-explanatory.

I concur wholeheartedly in the information contained in Dean

Hurst's memorandum and hope very much that the State Health Manpower Survey will be conducted and the project begun at an early date.

Robert C. Edwards, President

Memorandum to: Dr. Robert C. Edwards, President

From: Victor Hurst, Dean of the University

Subject: Need for a State Health Manpower Survey

A letter to you from Mr. W. H. Botts, Chairman of the Task Force on Health Manpower, Office of Comprehensive Health Planning, South Carolina State Board of Health, was referred to me. In turn, I duplicated Mr. Botts' letter and sent it to Deans Aucoin, Labecki, and Trevillian. I would like to present in brief form what I believe summarizes their answers.

The question is asked, "How would you use a 1969 copy of a South Carolina health manpower survey containing an inventory by county and forecast of future needs if you had one?" It is evident that such a survey would be helpful in assessing the future needs in specific fields of health manpower. Thus, we would be able to determine what type of personnel would be required in given geographic areas. It would be helpful in determining the need for continuing education programs and in planning for future academic programs at Clemson University.

The next question asked was, "Have you used the 1965 health manpower survey which was jointly prepared by the South Carolina Employment Security Commission and the South Carolina Hospital Administration?" The only answer that I have to this question is that Dean Labecki thinks that this health manpower survey of 1965 was instrumental in pointing out the need for the establishment of the School of Nursing at Clemson. I am sure that other needs were pointed out as well.

Another question asked is, "What segments of the health manpower are you most interested in?" Clemson University would be particularly interested in the manpower needs related to Nursing, and personnel involved in the administration of hospitals and persons who perform the planning, policy making and implementation of health care projects in federal, state, and local health care organizations.

Another question is, "What particular information would you like to have from the health manpower survey?" In regard to Nursing, it would be desirable to determine the educational background of all nurses in the area and should indicate whether or not a person had a master's degree, baccalaureate degree, associate degree, or diploma from a hospital or School of Nursing. A 1969 health manpower survey should be designed to encompass all health care fields

or careers in the State. Specifically, not only should health institutions be surveyed but all agencies, organizations, and individual jobs should be included. Among the health manpower users to be included would be health care institutions, educational institutions, physicians' and dentists' offices, health departments and health boards and the many organizations engaged in health planning and the design and management of health programs and projects. Other facets worthy of consideration are the number of positions available by each potential employer, the number of vacancies and the attrition rate by employer. A second phase of this survey should deal with trained health manpower which have escaped the employment pool and are either under-employed or unemployed.

The survey should be a continuing study, with surveys being conducted annually if possible. It would be very helpful if the survey could be programmed for computer operations. Thus, information could be updated so as to have summaries always available on an up-to-date basis with easy accessibility.

Winthrop College
Rock Hill, South Carolina

November 17, 1969

Mr. W. H. Botts, Chairman

Enclosed you will find the replies to the questions contained in your letter of November 4 regarding the value and the specific use at Winthrop of a state health manpower survey. These replies were made by Dr. Ross A. Webb, Dean of the Faculty at Winthrop. We hope that you will find this information helpful in determining the needs for such a survey.

Charles S. Davis, President

To: President Davis

From: Ross A. Webb

Subject: Health Manpower Survey

While a health manpower survey would be of general use, I do not think it would be as useful to Winthrop as to some other state agency since we do not have extensive programs in allied health services or the training of paramedical personnel. However, it may have some meaning for our medical technology program or the proposed dietetics program in the School of Home Economics. The Department of Physical Education might find it useful in that physical education graduates work in such areas as physical therapy. As to the specific questions asked in the letter:

1. How would you use a copy of the 1969 survey? I would respond—for placement and counseling in medical technology, dietetics and physical education.
2. How have you used the 1965 survey? To my knowledge we have not made use of it.
3. What segments of health manpower are you most interested in? I would answer—medical technology, dietetics, physical therapy.
4. What particular information would you like to have from a health manpower survey? Information of future demand for medical technicians, dieticians and physical therapists, salaries, locations of positions, scholarship aid for students entering these fields.
5. Should the survey be a continuing study? I would think that a five-year survey has value and importance, but I do not think an annual survey is that valuable.
6. How often would summaries be made available? Possibly every two or three years.

APPENDIX E

LICENSING OR REGISTRATION OF HEALTH PROFESSIONS AND OCCUPATIONS IN SOUTH CAROLINA

(as summarized from the 1970 South Carolina Legislative Manual)

Profession or Occupation	*Licensing or Registration Authority*
Chiropractors	State Board of Chiropractic Examiners, c/o Dr. A. J. Keown, 15 S. Leach Street, Greenville, South Carolina
Dentists, Dental Hygienists and Dental Technicians	S. C. State Board of Dentistry, Mr. N. B. Heyward, Sec., 1315 Blanding Street, Columbia, S. C. 29201
Embalmers and Funeral Directors	S. C. State Board of Funeral Service, Mr. C. R. Hinshaw, Jr., Exec. Sec., Box 201, Clover, S. C.
Naturopathy (Practice of Naturopathy is unlawful in South Carolina)	
Nurses	State Board of Nursing for S. C. Miss Ira Dean Kane, Exec. Dir., 909 Columbia Building, Columbia, South Carolina 29201
Optometrists	S. C. Board of Examiners in Optometry, Dr. Henry V. Sawyer, Sec.-Treas., Marion, S. C.
Pharmacists	State Board of Pharmaceutical Examiners, Mr. Thomas D. Wyatt, Sec., Wade Hampton Hotel, Columbia, South Carolina 29201
Physical Therapists	State Board of Examination and Registration of Physical Therapists, Mrs. Betty S. Tucker, Sec.-Treas., Greenwood, South Carolina
Physicians and Surgeons	State Board of Medical Examiners, Mr. Nathaniel B. Heyward, Exec. Sec., 1315 Blanding Street, Columbia, South Carolina 29201

Podiatrists	State Board of Podiatry Examiners, Dr. James D. Hill, Sec.-Treas., Anderson, South Carolina
Psychologists	State Board of Examiners in Psychology, Dr. Ann Josey, Sec., Department of Psychology, S. C. State Hospital, Columbia, S. C.
Sanitarians	S. C. State Board of Examiners for Registered Sanitarians, Mr. C. G. Leonard, Sec., 334 Calhoun Street, Charleston, South Carolina
Veterinarians	Board of Veterinary Examiners, Dr. H. L. Sutherland, Sec.-Treas., Union, South Carolina
Registered Social Workers	State Board of Social Worker Registration, Miss Louise Gray, Chairman, P. O. Box 1083, Columbia, S. C. 29202
Public Water and Waste Water Treatment Plant Operators	S. C. Board of Certification of Public Water and Waste Water Treatment Plant Operators, Mr. John E. Jenkins, Sec.-Treas., S. C. State Board of Health, J. Marion Sims Building, Columbia, South Carolina
Engineer, Professional (includes such health engineering fields as sanitation, environmental, industrial hygiene, radiology, etc.)	State Board of Engineering Examiners, Mrs. Mary M. Law, Exec. Sec., 710 Palmetto State Life Building, Columbia, S. C. 29201
Nursing Home Administrators	State Board of Examiners for Nursing Home Administrators, Mr. W. H. Botts, Chairman, 100 Mallard Street, Greenville, S. C. 29601